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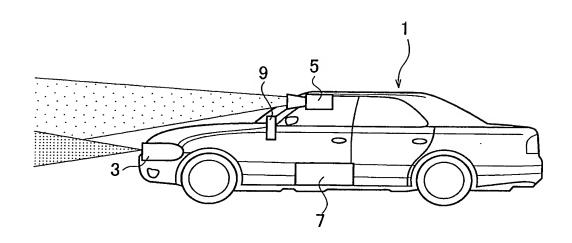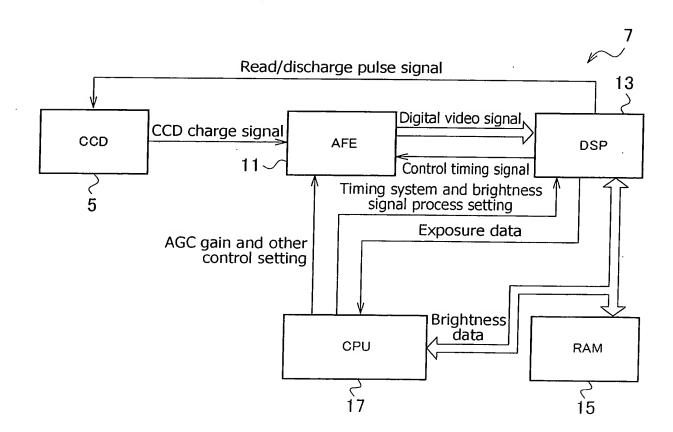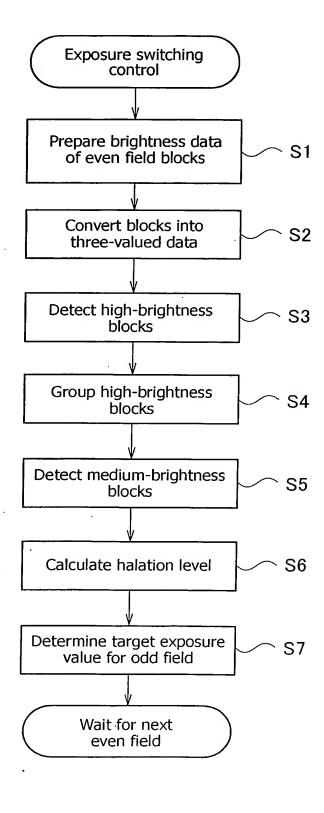1/13

Fig.1

Fig.2

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Fig.3

```
        ┌─────────────────────────┐
        │   Exposure switching     │
        │        control           │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │  Prepare brightness data │      S1
        │   of even field blocks   │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │    Convert blocks into   │      S2
        │     three-valued data    │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │   Detect high-brightness │      S3
        │          blocks          │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │    Group high-brightness │      S4
        │          blocks          │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │  Detect medium-brightness│      S5
        │          blocks          │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │  Calculate halation level│      S6
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │ Determine target exposure│      S7
        │    value for odd field   │
        └─────────────────────────┘
                    │
                    ▼
        ┌─────────────────────────┐
        │      Wait for next       │
        │        even field        │
        └─────────────────────────┘
```

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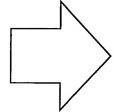
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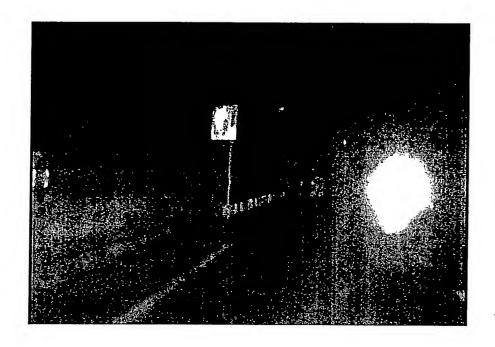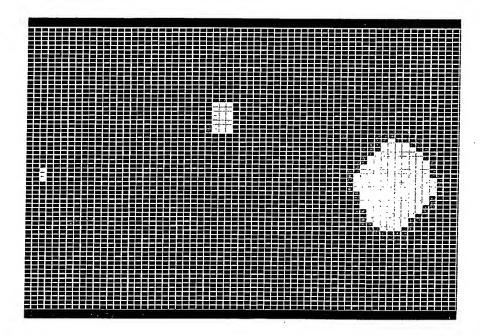## Fig.4

Fig.5

Fig.6

Fig.7

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Fig.8

X →

(0, 0)	(1, 0)	.	.	(63, 0)
(0, 1)	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
(0, 63)	.	.	.	(63, 63)

Y

Fig.9

Ratio of gray	Ratio of white	Ratio of black	Area color
$\geqq 50\%$	—	—	Gray
$<50\%$	Ratio of white $\geqq$ Ratio of black		White
	Ratio of white $<$ Ratio of black		Black

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Fig.10

Determine as gray block

Fig.11

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Fig.12

Fig.13

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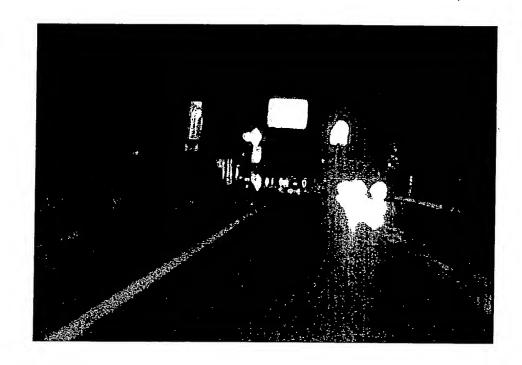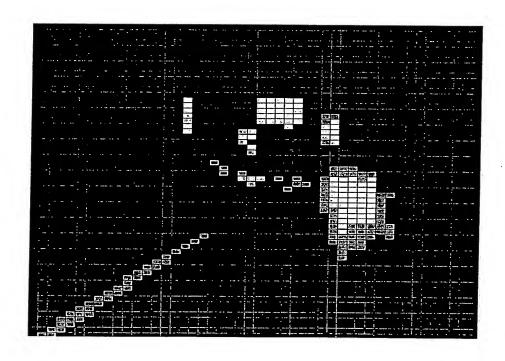Inventor: Hiroyuki KAWAMURA et al.
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Fig.14A

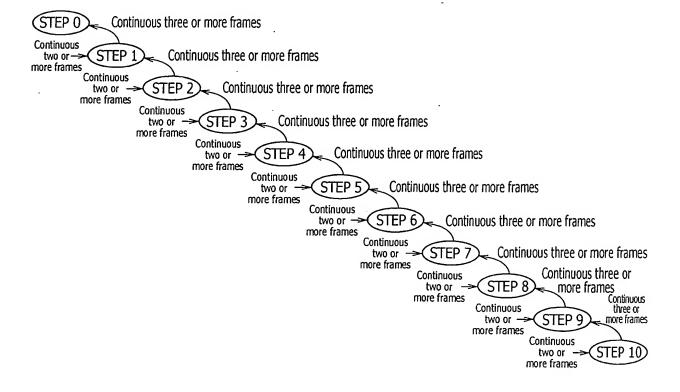| 1	2	3
4		5
6	7	8

Fig.14B

1	2	3	4
5			6
7	8	9	10

Fig.14C

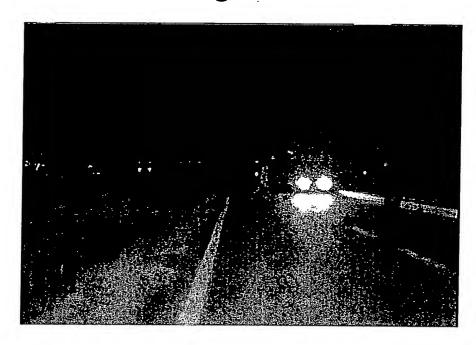| 1	2	3	4
5			6
7	8		9
	10	11	12

Fig.15

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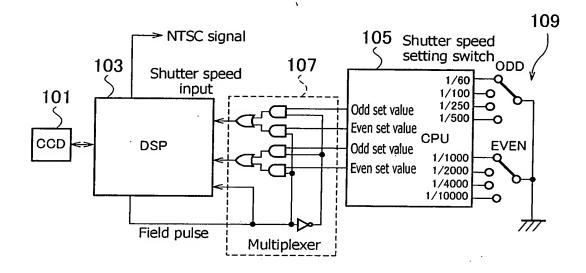
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Fig.16

Fig.17

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Fig.18

	Halation level		Exposure difference from even field
	Method 1	Method 2	
STEP0	0～5	0～500	0dB
STEP1	6～10	501～1000	−2dB
STEP2	11～15	1001～1500	−4dB
STEP3	16～20	1501～2000	−6dB
STEP4	21～25	2001～2500	−8dB
STEP5	26～30	2501～3000	−10dB
STEP6	31～35	3001～3500	−12dB
STEP7	36～40	3501～4000	−14dB
STEP8	41～45	4001～4500	−16dB
STEP9	46～50	4501～5000	−18dB
STEP10	51～	5001～	−20dB

Fig.19

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Fig.20

Fig.21

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Fig.22

Fig.23

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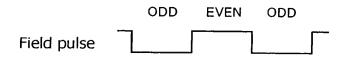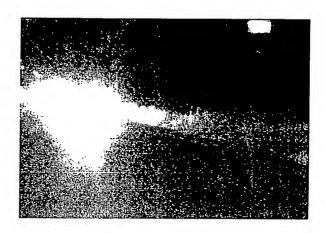Inventor: Hiroyuki KAWAMURA et al.
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Fig.24

Fig.25

Fig.26

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Fig.27

Fig.28